

## Job Growth to Slow as State Approaches New Millennium

*But RA Still Expects Increase of 155,000 Over 2-Year Period*

As all of us appear to be upon the eve of a new millennium, we are also readying ourselves to depart from this one. If there is one thing clear about the era being left behind, the legacy of the 1990s is not to be easily or quickly forgotten, especially in terms of the economic inertia that was achieved and which will eventually carry us into the year 2000. It's quite likely, especially for Arizona, that someday soon these will be remembered and referred to as the

### Forecast



### 1999-2000

"Roaring '90s."

Recently, several economic reports continue to boast the strength of the inertia still inherent in the economy. Perhaps the one which best depicts the aggregate activity and caught the widest attention recently was the gross domestic product (GDP) report — the output of goods and services produced by labor and property lo-

cated in the nation. In January, preliminary estimates showed the U.S. economy grew 5.6 percent during the fourth quarter '98. But even more importantly, while that figure was received as good news, the real surprise that caught everyone's attention came when the output figure was revised upward to a robust 6.1 percent.

Other reports include the monthly figures for unemployment and employment, the consumer price index, housing starts, personal income, consumer confidence polls, and figures on consumer spending, just to name a few. Unemployment reports continue to show that most people looking for jobs are able to find jobs with greater ease than they were 20 or even 30 years ago. Similarly, the other reports continue to support evidence from various other areas that the economy has been and continues to remain undeniably vibrant.

## IN THIS ISSUE

Volume 23 No. 1

	Page
<b>1999-2000 Employment</b>	
Forecast .....	1
<b>Wages Grew at Moderately</b>	
Strong Levels in '97-3rd Qtr '98 .	1
Arizona's Workforce, 4th Qtr '98 .	10
Industry Update.....	17

## Overall Wage Growth Moderately Strong

Wholesale Trade, Manufacturing Lead Near 10% Pay Gain in State Over 21-month Period Ended Third Quarter of '98

For workers in most major Arizona industry groups, wages rose at a moderately strong pace during 1997 and for the first three quarters of 1998 (the latest data available), according to data collected by DES, Research Administration. Overall, wages for workers covered by state

and federal Unemployment Insurance (UI) programs rose slightly under 10 percent during the 21-month period — 4¾ percent in 1997 and about 5 percent on an annual basis for the first three quarters of 1998.<sup>1</sup>

In fact, wages for workers in wholesale trade rocketed by 16 percent during the 21-month period, with manufacturing not too far behind at more than 12 percent. Among likely reasons for the rapid growth in wholesale trade wages was

*(continued on page 14)*

Still, there are signals from other reports that suggest over a period of time some "wear and tear" comes from such a high-octane pace. Not only have reports presented consumer spending being unusually high, but that debt levels and bankruptcies are also at record highs. As well, continuing pressures have been building beneath the good news on unemployment as some regions over time began experiencing particularly tight labor markets — otherwise referred to as labor shortages.

One concern has been the low unemployment rates. Increasingly, it has become apparent that the labor supply is unable to keep up with the fast growth of jobs. Throughout the nation, migration of labor between states often finds labor relocating where business opportunities are high, while in turn business-relocation decisions are heavily focused on being able to secure a decent level of labor in the future.

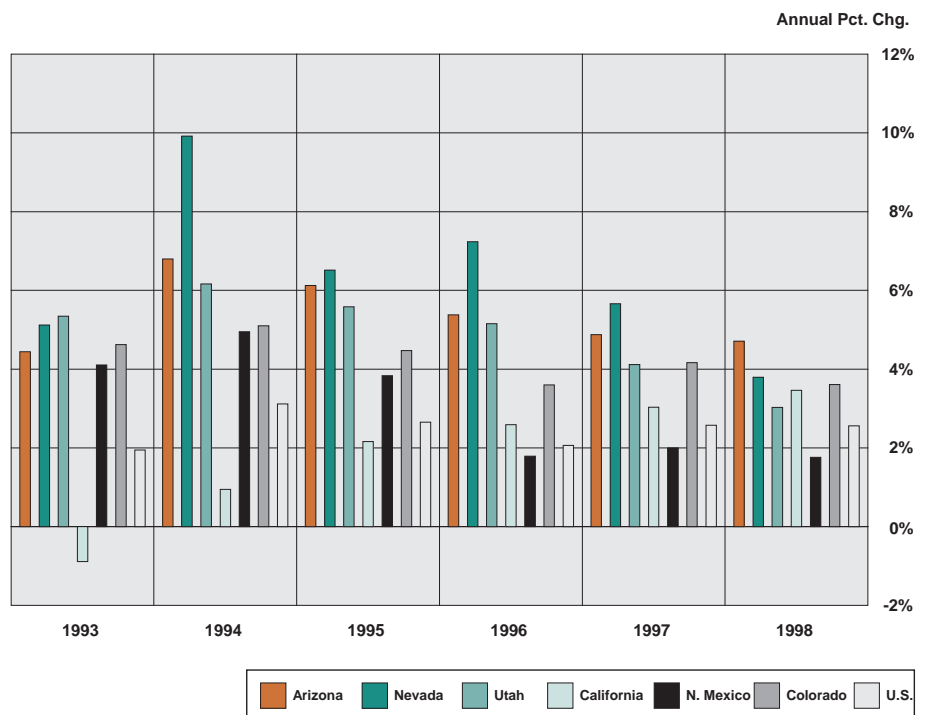
Fortunately for Arizona, much of this recent expansion came from many of those jobseekers (and companies) fleeing hard-pressed economic areas like Southern California during the early '90s. Arizona continues, however, to record the bulk of its population inflow from California. But with California vastly improved since the early '90s, this supply of labor may not remain a constant in the future.

Arizona's economy has without question been forging forward in overdrive speed. The Grand Canyon State's economy added more than 93,000 jobs in 1998, which represents an annual growth rate of 4.7 percent. This becomes even more meaningful when comparing Arizona's growth among states on a monthly basis throughout the '98 year. As it was tallied, Arizona had the fastest job growth in the nation seven out of 12 times last year. The other five times, Arizona ranked second.

Meanwhile, the torrid pace of

Figure 1

Annual Percentage Change in Nonfarm Payroll Employment in Arizona, U.S., and Selected Western States, 1993-1998



Source: Arizona Dept. of Economic Security, Research Administration; and U.S. Dept. of Labor, Bureau of Labor Statistics

growth held the unemployment rate to a low average of 4.1 percent. This follows the 4 percent average held in 1997. With a rate held down to such low levels over an extended time, eventually the question of whether the economy is experiencing a tight labor market disappeared in place of fact. Like other fast growing regions in recent years, Arizona is facing a labor shortage. Ultimately over time, this constrains or limits economic growth, just as a number of other economic resources would do when in short supply.

Since Arizona's Department of Economic Security (DES), Research Administration (RA) released its last forecast (September), the Asian, Brazilian and Latin American economies have shown some further economic downturn. Still, while these countries may not exhibit optimistic de-

mand potential in the near term, the recent trade data show U.S. consumers are reaping the benefits of lower-priced import goods. Once again, just as a reminder, while the national economy remains fundamentally strong, as with Arizona, the economic growth appears to be buttressed against supply and demand issues. The supply issues focused on the domestic growth of the labor supply. On the other hand, the demand issues are focused on the slackened export markets which stem from several troubled economies abroad.

## Arizona

As we look forward into the next two years, RA forecasts the economy will enter the new millennium still showing economic expansion. The two-year forecast portends Arizona will add more than 155,000 jobs.

However, this forecast also signals a slowing trend, which can perhaps be viewed as something of an economic respite after such a torrid pace of growth in recent years. Nevertheless, the 155,000 jobs imply annual growth averaging slightly faster than 3.7 percent over the two-year period.

As for the national economy over the next two years, the WEFA Group forecasts U.S. nonfarm payrolls to grow by 1.8 percent in 1999 and one-half of one percent in the year 2000. This is down from the approximate 2.6 percent in 1998.

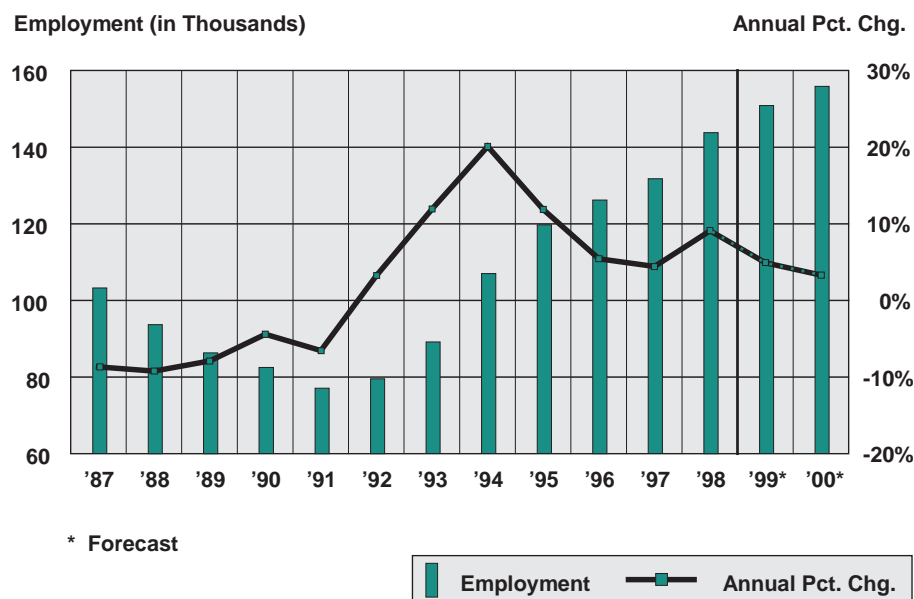
Arizona's goods-producing industries are expected to continue growing — adding nearly 23,000 jobs over the forecast period. Meanwhile, service-producing industries are projected to grow by more than 132,000 jobs. In other terms, this also means that the private-sector economy is forecast to grow by more than 138,000 jobs.

The Phoenix-Mesa metropolitan area (MA) is forecast to grow by nearly 118,000 jobs over next two years. This represents annual growth of roughly 4 percent, down from the mid-5 percent range of the last couple of years. The Tucson MA is forecast to add more than 19,000 new jobs, while showing average annual growth of roughly 3 percent. Meanwhile, the combined nonmetro regions are forecast to add approximately 18,500 jobs, also averaging annual growth of about 3 percent.

Arizona's manufacturing industry ended 1998 by showing average annual growth over the prior year of about 4.6 percent. While this clearly appears to be considerably robust, the string of monthly losses in the second half of the year plaguing the machinery sector is clear evidence that the Asian economic flu has impacted jobs tied to Arizona's export markets. And although Arizona Department of Commerce data for the first nine months of '98 reveal Arizona's trade with Mexico (Arizona's leading export market) is lagging be-

Figure 2

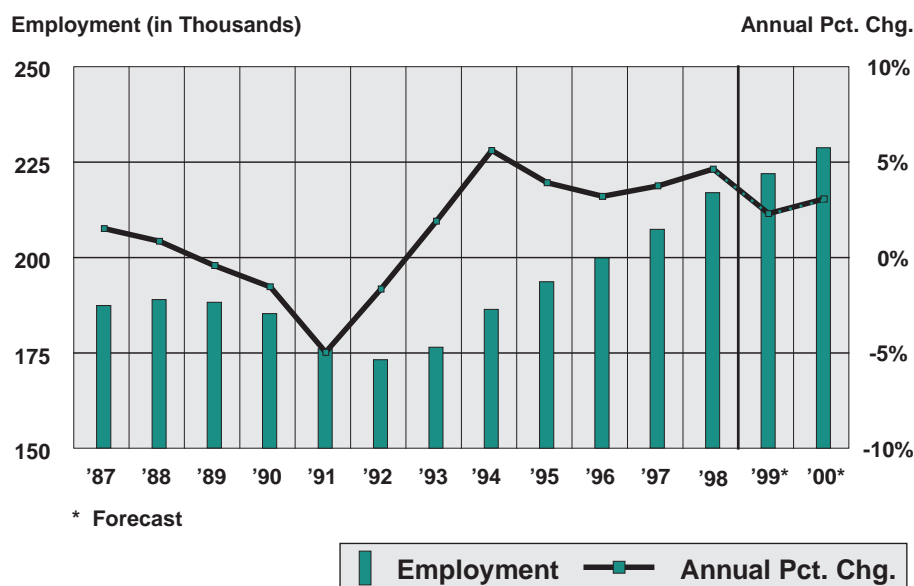
Arizona Construction Employment and Over-the-Year Percentage Change, 1987-'98 (Actual) and 1999-2000 (Forecast)



Source: Arizona Dept. of Economic Security, Research Administration, February 1999

Figure 3

Arizona Manufacturing Employment and Over-the-Year Percentage Change, 1987-'98 (Actual) and 1999-2000 (Forecast)



Source: Arizona Dept. of Economic Security, Research Administration, February 1999

hind '97 levels, the growth of trade nevertheless appears to be stronger than the same period in '96.

Overall, manufacturing is expected to endure some of the confluence of weakening and emerging strengths among the economies of Arizona's trading partners. With this in mind, RA's employment forecast calls for a 2.3 percent growth rate in '99, with a slight increase to near 3 percent in 2000. Growth is expected in both durable and non-durable goods sectors. This represents an increase of roughly 11,800 new jobs for Arizona's economy over the forecast period.

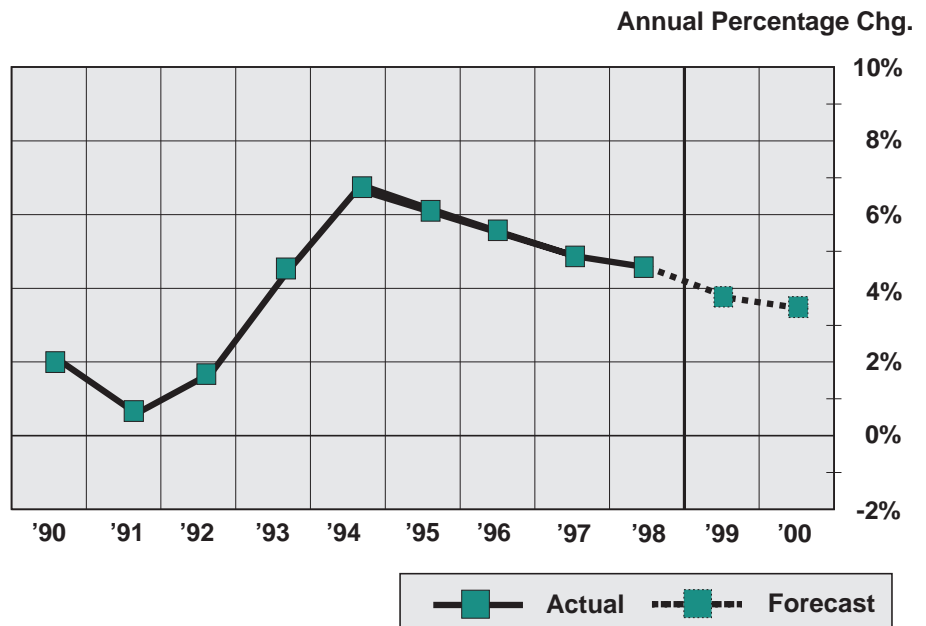
Mining is the one major industry of Arizona's economy not expected to show job growth over the next two years. Sustained lower commodity prices, increased supply, and slackened demand for copper are the primary reasons. Such reasons are behind the industry losses over the last two years, with the industry showing job losses in '98 of nearly 6.5 percent. As a result, the industry is forecast to shed nearly 1,000 jobs over the 1999-2000 period.

Arizona's construction industry has managed to catch national attention lately. The primary reason has been the robust activity in the Phoenix-Mesa MA — ranked second in the nation for single-family building permits in 1998. So robust has the construction activity been that according to the most recent *U.S. Housing Markets* report (from the Meyers Group), it was cited "Arizona builders smashed a 20-year old" record for single-family permits in 1998. This will likely carry the momentum into the forecast period. Still, this industry is closely tied to interest rate moves. And with so much good news recently about the strong national economy, it's quite likely to result in interest rate hikes, actions that would most likely constrict industry growth.

Nevertheless, RA forecasts that the economic inertia of Arizona's construction industry will result in an in-

Figure 4

Arizona Nonfarm Payroll Employment Growth Rates, Actual (1990-1998) and Projected (1999, 2000)



Source: Arizona Dept. of Economic Security, Research Administration, February 1999

Table 1

Arizona Nonfarm Payroll Employment, Actual (1998) and Projected (1999, 2000)

(Annual Averages, in Thousands)

	1997	Growth Rate	1998	Growth Rate	1999	Growth Rate
<b>Nonfarm Payroll<sup>(a)</sup></b>	<b>1,977.0</b>	<b>4.5%</b>	<b>2,050.7</b>	<b>3.7%</b>	<b>2,111.2</b>	<b>3.0%</b>
<b>Goods-Producing</b>	<b>351.3</b>	<b>3.4</b>	<b>357.7</b>	<b>1.8</b>	<b>362.1</b>	<b>1.2</b>
Manufacturing	206.9	3.5	213.3	3.1	218.4	2.4
Mining	13.9	-0.7	11.8	-15.1	11.4	-3.4
Construction	130.5	3.5	132.6	1.6	132.3	-0.2
<b>Service-Producing</b>	<b>1,625.4</b>	<b>4.7</b>	<b>1,693.0</b>	<b>4.2</b>	<b>1,749.1</b>	<b>3.3</b>
TCPU <sup>(b,c)</sup>	95.5	4.0	98.8	3.5	101.9	3.1
Trade	481.4	3.7	498.3	3.5	513.8	3.1
FIRE <sup>(d)</sup>	126.5	8.0	132.5	4.7	136.4	2.9
Services	598.5	6.7	632.3	5.6	659.4	4.3
Government <sup>(c)</sup>	323.5	1.8	331.1	2.3	337.6	2.0

**Notes:** a) Totals may not add up exactly due to rounding  
b) Transportation, Communications, and Public Utilities  
c) For forecasting purposes, Salt River Project is included in TCPU instead of Government  
d) Finance, Insurance, and Real Estate

Source: Arizona Dept. of Economic Security, Research Administration, February 1999

crease of roughly 12,000 new jobs. This translates into growth rates of near 5 percent for '99 and the mid-3 percent range for 2000. Construction showed growth of more than 9 percent in 1998, up from the 4.5 percent recorded in '97.

Another industry that did very well in '98 was the finance, insurance, and real estate (FIRE) group. Some of the most serious ever mergers and acquisitions took place among major industry leaders of this group during '98, not only to strengthen their market position in the domestic markets but the foreign ones as well. Further moves toward deregulation of the banking industry are also expected, something which began in the mid-'80s.

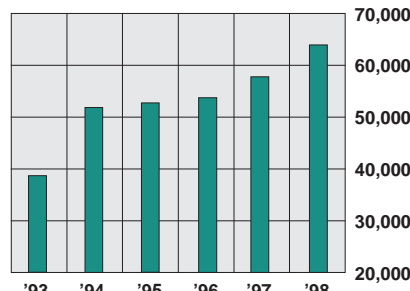
Not only nationally but as well as in Arizona, job growth in the FIRE group has been strong. A surge of consumer investment activity in recent years, along with economic financing and real estate activity, led to job growth hovering in the 8 to 9 percent range. Nevertheless, RA forecasts that these rates will slow to near 6 percent in '99 and near 5 percent in the year 2000. This amounts to forecast job growth of more than 15,000 jobs over the next two years.

Services is forecast to add more than 56,000 jobs over the next two years. Most all subindustry areas are projected to show slower growth throughout the forecast period. Services grew by nearly 5 percent in 1998, representing nearly 30,000 new jobs. Job growth is forecast to slow to a low-4 percent annual average range over the next two years.

Arizona's transportation, communications, and public utilities (TCPU) group is forecast to add more than 7,000 new jobs over the 1999-2000 period. Transportation (which includes airlines, trucking, and rail sectors) has experienced vibrant growth due to a strong national economy. As well, the industry faces the tightening labor market pressures, especially

**Figure 5**

**Arizona Authorized Building Permits, 1993-1998**



Source: U.S. Dept. of Commerce, Bureau of Census

exhibited by the recent threats of (and possible) labor strikes in the airline sector.

Government is forecast to add nearly 17,000 jobs over the next two years. Serving Arizona's growing population base in areas such as education and public services, this translates to annual growth of roughly two-and-a-half percent.

In conclusion, Arizona's economy is forecast to close out the '90s in high-flying fashion, as well as emerge into the next millennium while still expanding. Although the economy is forecast to slow, job opportunities are expected to remain at well above the national average rates over the next two years.

### Phoenix-Mesa MA

Metropolitan Phoenix will lead Arizona job growth into the new millennium. The MA is projected to add 117,800 nonfarm payroll jobs in 1999-2000 forecast period. According to RA data, job growth averaged 5.6 percent in 1998, but this is projected to moderate in 1999 to 4.1 percent and 3.8 percent in 2000.

In general, Arizona's economy is expected to remain relatively strong over the two-year period. RA projects that the goods-producing industries will slow to near 3.5 percent for 1999 and

2000. Service-producing industries, on the other hand, are projected to grow by 4.3 percent in 1999 and then 3.9 percent in the year 2000.

While the Asian economic crisis began in 1997, the more serious effects to Arizona's jobs were not felt in the metro Phoenix manufacturing industry until mid-'98. Comprising approximately one-third of the manufacturing industry, machinery jobs have experienced steady declines for six consecutive months — from the second quarter of 1998 through the first quarter of 1999. Hardest hit were the electronics manufacturing industry sectors. Still, jobs in other sectors have continued to flourish due to the robust U.S. economy and other (non-Asian) economies. RA projects manufacturing jobs will grow by 2.4 percent (4,100) in '99, then increase by 3.5 percent in 2000.

Construction activity in the Phoenix-Mesa MA was particularly strong in 1998 — jobs in the industry swelled by 10.6 percent. This industry has never been stronger than it has been through the '90s. While generally the state has experienced strong population in-migration, the Phoenix-Mesa MA has attracted many people to it for its job growth. Coupled with the continuing low interest rate environment, construction-related jobs continued to accelerate in '98 to meet the housing and commercial needs of a region in which jobs are growing throughout most industries. RA projects this momentum will carry over into '99 with employment growth returning to a more modest range of 5.5 percent. The slowing is predicted to continue as job growth settles to 3.9 percent in the year 2000.

Mining is the only industry anticipated to lose employment during the 1999-2000 forecast period. While technological advances over the years have lessened the industry's dependency on labor, the industry faces low commodity prices and slackened demand for copper. It is for these reasons that the mining in-

dustry has and will continue to steadily lose employment. The employment level of 5,700 in 1998 is expected to fall to 5,500 in 1999 and to 5,300 in 2000.

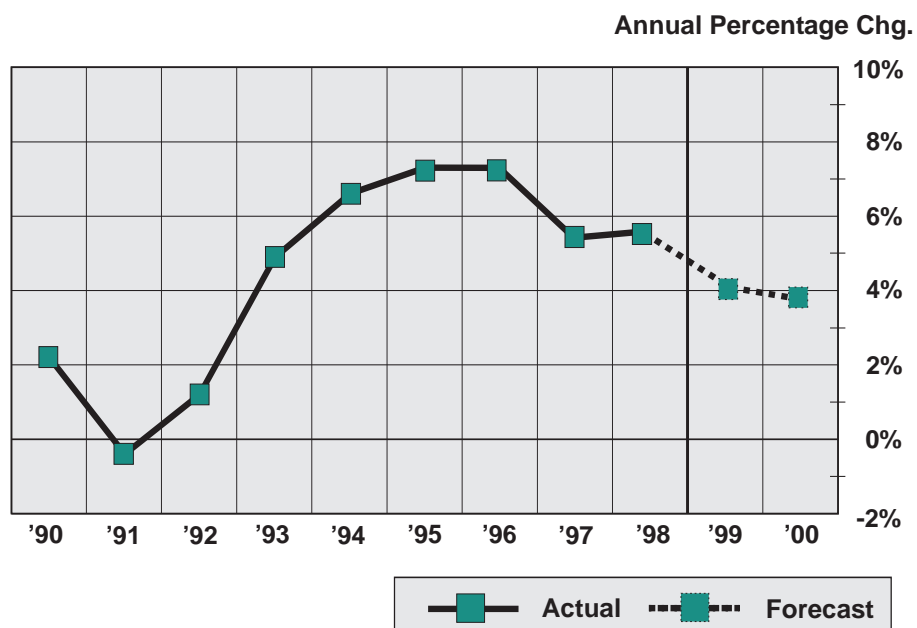
Arizona's finance, insurance and real estate (FIRE) group experienced large mergers and acquisitions in '98. Competitive forces to amalgamate resources have been thriving in these recognizably "good times," and the effects have extended beyond national borders throughout the globe. But this may in time suggest that some layoffs may be imminent as companies weigh their market demand with cost-efficiency pressures. Until then, especially in metro-Phoenix, the FIRE group will be serving the financing needs of a fast-growing population's purchase of home and commercial real estate, home and office furnishings, automobiles, etc. Nevertheless, RA projects the FIRE group in the Phoenix-Mesa MA to grow by 7,800 jobs (6.7 percent) in 1999 and 6,600 jobs (5.3 percent) in 2000.

Trade and services are two industries that likewise benefit from the large population expansion in the Phoenix-Mesa MA. As well, as it relates to tourism, each has experienced growth related to the healthy national economy. Trade is predicted to expand by 27,300 jobs in the next two years. This represents job growth of 4 percent (14,100 jobs) and 3.6 percent (13,200 jobs) for 1999 and 2000, respectively. As well, services is forecast to experience fairly constant growth over the forecast period. RA foresees similar growth to 1998, with a rate of 4.5 percent in '99, then slowing slightly to 4.2 percent in 2000. Overall, this translates to 40,300 additional services jobs during the two-year forecast period. The business services sector is expected to continue leading most other sectors of this group.

The transportation, communications, and public utilities (TCPU) group is projected to add 6,400 jobs to the Phoenix-Mesa economy between

Figure 6

Phoenix-Mesa Metropolitan Area Nonfarm Payroll Employment Growth Rates, Actual (1990-1998) and Projected (1999, 2000)



Source: Arizona Dept. of Economic Security, Research Administration, February 1999

Table 2

Phoenix-Mesa Metropolitan Area Nonfarm Payroll Employment, Actual (1998) and Projected (1999, 2000)

(Annual Averages, in Thousands)

	1997	Growth Rate	1998	Growth Rate	1999	Growth Rate
<b>Nonfarm Payroll<sup>(a)</sup></b>	<b>1,384.0</b>	<b>5.5%</b>	<b>1,440.8</b>	<b>4.1%</b>	<b>1,485.4</b>	<b>3.1%</b>
<b>Goods-Producing</b>	<b>260.9</b>	<b>4.0</b>	<b>265.8</b>	<b>1.9</b>	<b>269.2</b>	<b>1.3</b>
Manufacturing	160.8	4.2	166.3	3.4	170.4	2.5
Mining	6.4	0.0	4.8	-25.0	4.6	-4.2
Construction	90.6	7.0	92.8	2.4	91.5	-1.4
<b>Service-Producing</b>	<b>1,122.6</b>	<b>5.8</b>	<b>1,175.0</b>	<b>4.7</b>	<b>1,216.2</b>	<b>3.5</b>
TCPU <sup>(b,c)</sup>	70.1	5.9	72.9	4.0	75.4	3.4
Trade	338.9	4.1	351.3	3.7	362.1	3.1
FIRE <sup>(d)</sup>	106.6	10.6	112.5	5.5	116.1	3.2
Services	434.5	7.8	461.8	6.3	482.8	4.5
Government <sup>(c,d)</sup>	172.5	1.5	176.5	2.3	179.8	1.9

Notes: a) Totals may not add exactly due to rounding

b) Transportation, Communications, and Public Utilities

c) For forecasting purposes, Salt River Project is included in TCPU instead of Government

d) Finance, Insurance, and Real Estate

Source: Arizona Dept. of Economic Security, Research Administration, February 1999

1999 and 2000. RA predicts growth of 4.6 percent in '99 and 3.8 percent in 2000. Deregulation in the communications and public utilities industries will continue to foster growth of new firms and thus spur employment growth. Airline and railway sectors have been pressured with meeting the needs of recreation, holiday, and business travelers during a healthy economy. They also feel, for the same reasons, the growth pressures being experienced by the trucking firms in transporting goods.

Government is forecast to add 9,600 jobs. This growth stems mostly from an expanding population and the related pressures experienced in the education and public service areas of the economy. Jobs are expected to grow at a rate of 2.6 percent per year over the next two years.

In conclusion, the Phoenix-Mesa economy is anticipated to remain vibrant throughout the forecast period. An especially tight labor market and weakness in some export economies are expected to restrict job growth in this rapidly growing metropolitan economy during the forecast period. Economic growth is expected to cool from the heated pace of the 1997-1998 period, but job growth in the 4 percent range is still very respectable.

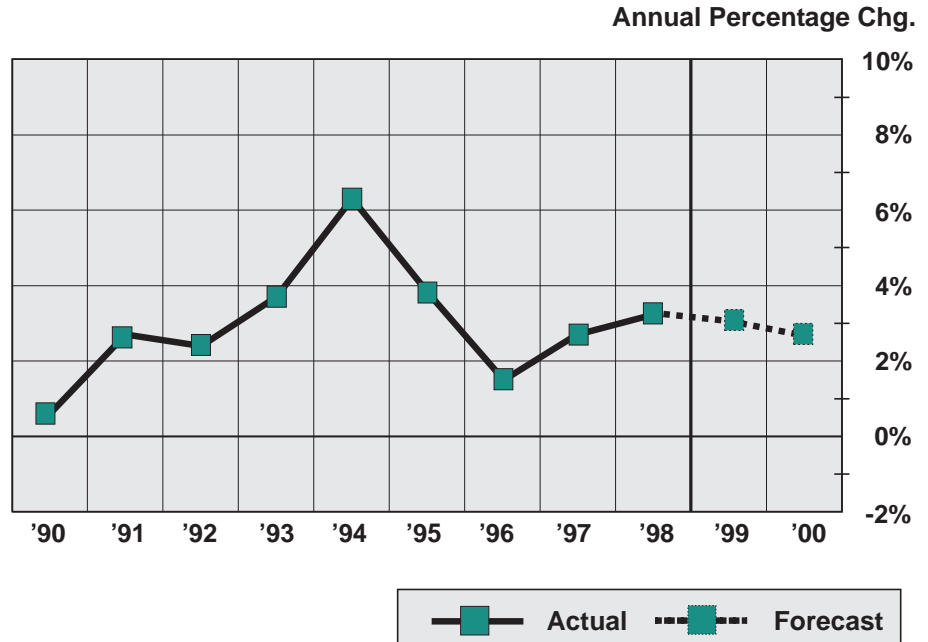
### Tucson Metro Area

RA predicts the Tucson MA economy will add more than 19,000 non-farm jobs over the next two years. This figure translates into growth averaging nearly 3 percent per year. With the exception of mining, all industries are expected to show job growth.

The Tucson MA's civilian labor force grew at an accelerated pace in 1998 over 1997. Tucson MA's civilian labor force declined by an average 2.5 percent per month in '97. However, in '98 the civilian labor force reversed this earlier trend by expanding 11 of the 12 months to average growth of 2.4 percent per month. Meanwhile, employment declined in

Figure 7

Tucson Metropolitan Area Nonfarm Payroll Employment Growth Rates, Actual (1990-1998) and Projected (1999-2000)



Source: Arizona Dept. of Economic Security, Research Administration, February 1999

Table 3

Tucson Metropolitan Area Nonfarm Payroll Employment, Actual (1998) and Projected (1999, 2000)

(Annual Averages, in Thousands)

	1997	Growth Rate	1998	Growth Rate	1999	Growth Rate
<b>Wage and Salary<sup>(a)</sup></b>	<b>312.7</b>	<b>1.9%</b>	<b>321.2</b>	<b>2.7%</b>	<b>330.3</b>	<b>2.8%</b>
<b>Goods-Producing</b>	<b>49.8</b>	<b>0.8</b>	<b>50.7</b>	<b>1.8</b>	<b>51.5</b>	<b>1.6</b>
Manufacturing	28.2	0.7	28.9	2.5	29.7	2.8
Mining	2.3	0.0	2.0	-13.0	1.9	-5.0
Construction	19.3	1.0	19.8	2.6	19.9	0.5
<b>Service-Producing</b>	<b>262.5</b>	<b>1.6</b>	<b>270.5</b>	<b>3.1</b>	<b>278.8</b>	<b>3.1</b>
TCPU <sup>(b)</sup>	13.2	-2.2	13.4	1.5	13.7	2.2
Trade	68.2	0.7	70.4	3.2	72.9	3.6
FIRE <sup>(d)</sup>	11.8	-1.7	12.0	1.7	12.2	1.7
Services	98.7	3.1	102.7	4.1	106.6	3.8
Government	70.6	1.7	72.0	2.0	73.4	1.9

Notes: a) Totals may not add up exactly due to rounding  
b) Transportation, Communications, and Public Utilities  
c) Finance, Insurance, and Real Estate

Source: Arizona Dept. of Economic Security, Research Administration, February 1999

'97 by an average of 2.1 percent per month. However, employment growth in '98 reversed at an even faster pace than the labor force, expanding at an average 3 percent per month. Together, these events drove the unemployment rate down to the lowest level in the state.

After having experienced growth of 3.2 percent in 1998, nonfarm jobs in the Tucson MA are projected to expand by 3.1 percent by '99 and 2.7 percent in 2000. Once again, this contrasts with projected job growth (by the WEFA Group) at the national level of 1.8 percent in '99 and one-half of one percentage point in 2000.

Not surprisingly, Tucson's service-producing industries are projected to contribute the largest share of jobs (17,500) over the two-year forecast period. The goods-producing industries are expected to add the balance of 1,600 jobs.

With job growth of 2.6 percent in '98, Tucson's manufacturing industry experienced a relatively good year. RA's forecast shows future optimism is in store for Tucson's manufacturing industry with job growth of 2 percent in '99, then slowing slightly to 1.7 percent in 2000. This translates to 1,100 manufacturing jobs over the two-year period.

Construction jobs in the Tucson MA grew by 3.3 percent in 1998. While RA forecasts lower rates of construction job creation over the next two years, sustained employment growth is expected to support Tucson's increasing attractiveness with increased housing, business, and infrastructure demand. Construction jobs are forecast to expand by 2.4 percent in '99 and one percent in 2000. This represents an additional 700 jobs to the Tucson MA economy.

Rounding out the goods-producing industries, mining, plagued by slackening demand and weak copper prices, is projected to lose 200 jobs for the two-year forecast period.

The transportation, communica-

*It is important to note that many of the cities throughout Arizona's rural and small counties are quickly moving into the next millennium with vigorous job growth.*

tions, and public utilities (TCPU) group is forecast to grow by 300 jobs over the 1999-2000 period. The gains reflect strength in the transportation sector stemming from strong national economy and regional growth. TCPU is expected to grow by 1.7 percent in '99, then slow in 2000 to growth of seven-tenths of one percent.

Jobs in Tucson's trade industry are expected to increase from 1998 levels. A strong national and local economy bolsters consumer confidence, and the trade industry is largely influenced by how local and tourist consumers respond. As well, strong equity and labor markets provide the economic means. Additionally, inflationary pressures have been incredibly low, while ever tightening labor markets have worked to increase the industry wages and salaries. While trade jobs increased in '98 by 1.6 percent, the forecast for '99 is 2.8 percent, followed by 2.6 percent in 2000. These projections are, in part, due to Tucson's increasing attractiveness.

The finance, insurance and real estate (FIRE) group showed strong growth in 1998 in support of increased investment and financing activity that comes with a robust economy. Once again, RA's projections show continued employment opportunities in the FIRE group, with growth in '99 of one percent and of 1.5 percent in 2000.

With an increase of 7,000 jobs in 1998, Tucson's services industry expe-

rienced perhaps it's strongest job growth throughout the '80s and 90s. Annual percentage growth was 7.1 percent. Companies relocating to Tucson and firms that offer credit card and other related services induced much of this seemingly super-normal growth. RA forecasts services will add jobs at rates of 4.9 percent and 4.1 percent in 1999 and 2000, respectively, amounting to an additional 9,800 jobs over the two-year period.

Government employment is projected to grow an average 2.2 percent for the 1999-2000 forecast period. Most of this growth will be to support education and public services in the expanding Tucson economy.

### Balance of State

Arizona's rural and smaller counties are forecast to expand by 18,400 nonfarm payroll jobs in the 1999-2000 period. This amounts to roughly the number of jobs created by the Tucson MA. It is important to note that many of the cities throughout Arizona's rural and small counties are quickly moving into the next millennium with vigorous job growth.

The goods-producing industries are projected to grow by 1,700 jobs over the next two years. The small county goods-producing industries generally serve local or regional needs. Much of the local growth pressures will likely fuel additional manufacturing and construction jobs.

Service-producing industries are forecast to increase by nearly 17,000 jobs. This represents annual rates of growth of 3.4 percent in '99 and 3.2 percent in 2000. Much of this growth will be to provide a wider variety of services needed by the many new residents and to support the industries catering to tourists and visitors.

A general summary of the industry employment forecast:

- Manufacturing is projected to expand by 700 jobs in the 1999-2000 period. This represents

## 1999-2000 EMPLOYMENT FORECAST

roughly 350 jobs each year, with annual growth rates of roughly 2 percent.

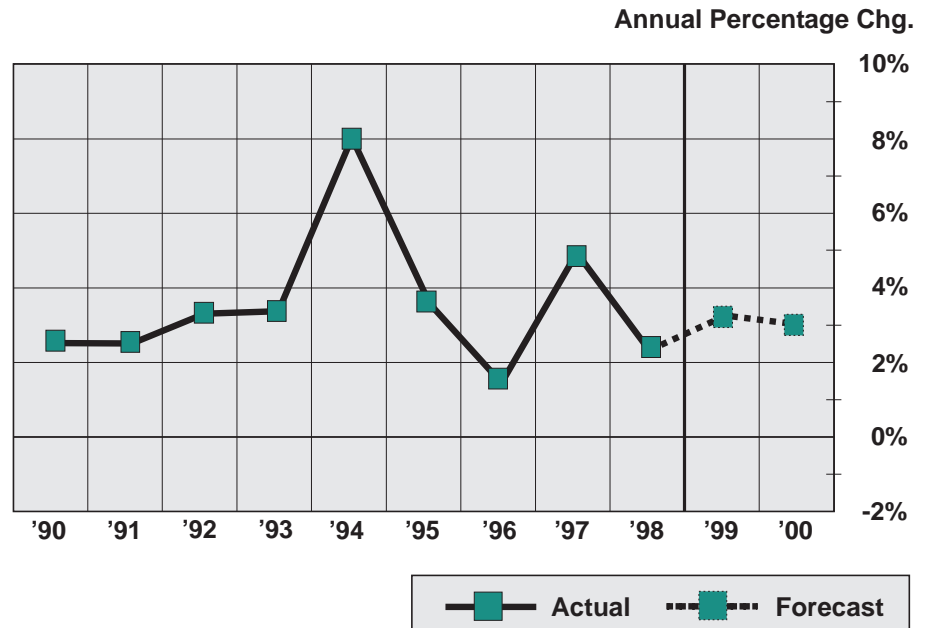
- Mining is forecast to show continuing losses. This industry is expected to pare 300 jobs, shrinking by 3 percent in '99 and 4.1 percent in 2000.
- Construction jobs are projected to grow by 900 in '99 (4.6 percent) and 400 in 2000 (2.1 percent).
- Jobs in the transportation, communications, and public utilities (TCPU) industry group are forecast to expand by 2 percent in '99 and 1.5 percent in 2000. This means about 500 additional jobs over the two-year period.
- Trade jobs in the small counties are forecast to expand by 5,200. This translates into roughly 2,500 jobs, or growth of 3.5 percent each of the next two years.
- The finance, insurance, and real estate (FIRE) group is expected to grow at a rate of 2.9 percent in '99 and 3.3 percent in 2000, which amounts to about 600 jobs.
- The services industry is projected to grow by 6,400 jobs during the forecast period. Thus, about 3,400 jobs are expected in '99 and 3,000 in 2000. This represents annual growth rates of more than 4.5 percent over the next two years.
- Government is projected to show annual job growth of 2.4 percent for both '99 and 2000, representing more than 4,000 jobs.

Overall, the future for the small counties of Arizona for the years 1999 and 2000 looks bright with non-farm payroll job-growth rates of 3.2 percent and 3 percent, respectively. **AET**

— Don Wehbey and Peter Kozy,  
RA Economists

**Figure 8**

**Balance of State Nonfarm Payroll Employment Growth Rates, Actual (1990-1998) and Projected (1999, 2000)**



Source: Arizona Dept. of Economic Security, Research Administration, February 1999

**Table 4**

**Nonmetropolitan Counties' Nonfarm Payroll Employment, Actual (1998) and Projected (1999, 2000)**

(Annual Averages, in Thousands)

	1997	Growth Rate	1998	Growth Rate	1999	Growth Rate
<b>Wage and Salary<sup>(a)</sup></b>	<b>280.3</b>	<b>2.7%</b>	<b>288.7</b>	<b>3.0%</b>	<b>295.5</b>	<b>2.4%</b>
<b>Goods-Producing</b>	<b>40.8</b>	<b>2.3</b>	<b>41.2</b>	<b>1.0</b>	<b>41.4</b>	<b>0.5</b>
Manufacturing	17.9	1.7	18.1	1.1	18.3	1.1
Mining	5.2	-1.9	5.0	-3.8	4.9	-2.0
Construction	17.5	4.2	18.1	3.4	18.2	0.6
<b>Service-Producing</b>	<b>240.3</b>	<b>2.9</b>	<b>247.5</b>	<b>3.0</b>	<b>254.1</b>	<b>2.7</b>
TCPU <sup>(b,c)</sup>	12.2	0.8	12.5	2.5	12.8	2.4
Trade	74.3	2.9	76.6	3.1	78.8	2.9
FIRE <sup>(d)</sup>	8.1	-6.9	8.0	-1.2	8.1	1.2
Services	65.3	5.2	67.8	3.8	70.0	3.2
Government <sup>(c)</sup>	80.4	2.4	82.6	2.7	84.4	2.2

- Notes:**
- a) Totals may not add up exactly due to rounding
  - b) Transportation, Communications, and Public Utilities
  - c) For forecasting purposes, Salt River Project is included in TCPU instead of Government
  - d) Finance, Insurance, and Real Estate

Source: Arizona Dept. of Economic Security, Research Administration, February 1999

# Ariz. Nonfarm Jobs Grew at Average Rate in 4th Quarter

Arizona's civilian labor force grew by a seasonally high average of 31,000 workers during the final quarter of 1998. This represents a 1.3 percent increase over third-quarter figures. The seasonally adjusted unemployment rate declined by one-tenth of a percentage point, continuing a downward trend from the early 1990s and reaching a decade low average of 4 percent.

Nonfarm payroll jobs increased by 3.5 percent during the fourth quarter, just under the 10-year average of 3.8

## AZ WORKFORCE TRENDS — 4TH QTR '98

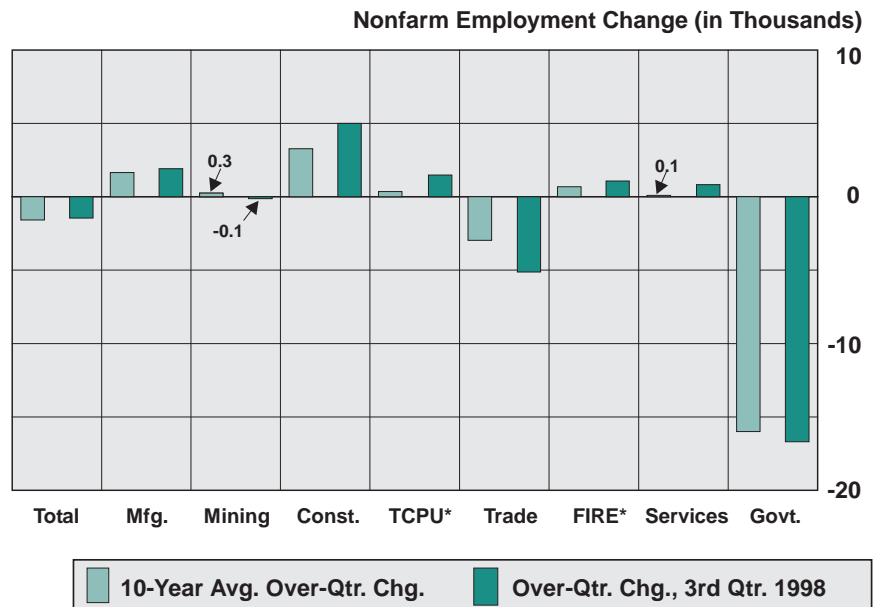
percent. This gain represents an average increase of 72,500 jobs over third-quarter figures, of which 3,700 were generated by goods-producing industries, an above-average gain for the season, and 68,900 by service-producing industries. Job growth in service-producing industries, though significant, was slightly below average at 4.1 percent. The 10-year average fourth-quarter gain is 4.6 percent. This difference, however, was in line with a general slowing in service-producing industries that has been evident over the last two years.

- The increase in goods-producing industries primarily reflects growth in construction employment, which was notably high for the season at 2.3 percent. An already strong industry, thanks to Arizona's rapidly growing metropolitan areas, construction has been further enhanced by generally warmer weather and favorably low interest rates.
- As expected, mining experienced an average reduction of 200 jobs. This loss occurred entirely within copper mining, continuing a downward trend for this industry.

(continued on back page)

Figure 1

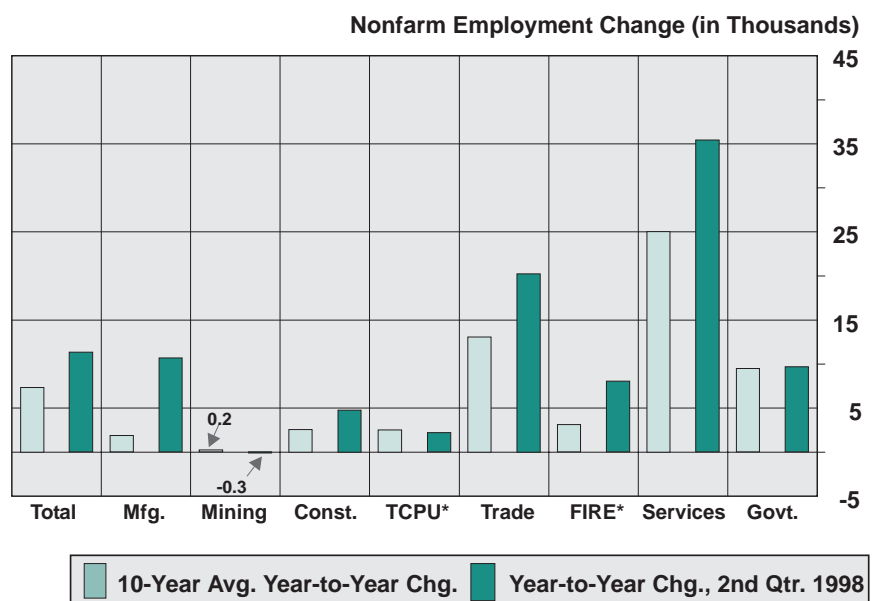
Quarterly and 10-Year Average Quarterly Change in Arizona Major Industry Employment, 4th Qtr. 1998<sup>1</sup>



\* Transportation, Communications, and Public Utilities  
 \*\* Finance, Insurance, and Real Estate

Figure 2

Over-the-Year Change and 10-Year Average Over-the-Year Change in Arizona Major Industry Employment, 4th Qtr. 1998<sup>1</sup>



\* Transportation, Communications, and Public Utilities  
 \*\* Finance, Insurance, and Real Estate

**Note:** 1) Quarterly averages of monthly data, not seasonally adjusted

**Source:** Arizona Dept. of Economic Security, Research Administration, March 1999

Table 1

**Arizona Quarterly Nonfarm Employment Data, with Quarterly and Over-the-Year Percentage Change,  
4th Qtr. 1997-4th Qtr. 1998<sup>(1)</sup>**

(in Thousands)

	97/4	98/1	98/2	98/3	98/4	10-year Avg. of Qtr. 4 Changes
<b>Civilian Labor Force</b>	<b>2,209.7</b>	<b>2,194.1</b>	<b>2,251.7</b>	<b>2,306.4</b>	<b>2,337.4</b>	
Quarterly Change	0.6%	-0.7%	2.6%	2.4%	1.3%	NA
Annual Change	0.2%	1.6%	3.6%	5.0%	5.8%	NA
<b>Total Employment</b>	<b>2,115.6</b>	<b>2,109.6</b>	<b>2,158.3</b>	<b>2,197.3</b>	<b>2,248.0</b>	
Quarterly Change	1.4%	-0.3%	2.3%	1.8%	2.3%	NA
Annual Change	1.3%	2.6%	4.0%	5.4%	6.3%	NA
<b>Total Nonfarm Payroll Employment</b>	<b>2,052.9</b>	<b>2,043.5</b>	<b>2,071.1</b>	<b>2,062.6</b>	<b>2,135.1</b>	
Quarterly Change	4.5%	-0.5%	1.4%	-0.4%	3.5%	3.8%
Annual Change	5.3%	4.8%	5.0%	5.0%	4.0%	4.0%
<b>Manufacturing</b>	<b>213.0</b>	<b>215.0</b>	<b>216.7</b>	<b>218.0</b>	<b>218.4</b>	
Quarterly Change	2.0%	1.0%	0.8%	0.6%	0.2%	0.6%
Annual Change	5.4%	6.1%	5.7%	4.4%	2.6%	1.5%
<b>Mining and Quarrying</b>	<b>13.5</b>	<b>13.1</b>	<b>13.0</b>	<b>12.8</b>	<b>12.6</b>	
Quarterly Change	-4.5%	-2.5%	-1.3%	-1.3%	-1.6%	-1.8%
Annual Change	0.7%	-5.5%	-4.9%	-9.2%	-6.4%	0.6%
<b>Construction</b>	<b>137.5</b>	<b>135.7</b>	<b>141.5</b>	<b>147.3</b>	<b>150.7</b>	
Quarterly Change	2.5%	-1.3%	4.3%	4.1%	2.3%	0.7%
Annual Change	6.8%	8.0%	8.9%	9.8%	9.6%	5.4%
<b>Transportation, Communications, and Public Utilities</b>	<b>99.3</b>	<b>98.1</b>	<b>100.0</b>	<b>101.7</b>	<b>104.2</b>	
Quarterly Change	3.2%	-1.2%	2.0%	1.7%	2.4%	1.9%
Annual Change	4.5%	3.5%	4.0%	5.7%	4.9%	3.4%
<b>Finance, Insurance, &amp; Real Estate</b>	<b>133.7</b>	<b>132.5</b>	<b>139.2</b>	<b>141.1</b>	<b>142.9</b>	
Quarterly Change	4.1%	-0.9%	5.1%	1.4%	1.2%	1.6%
Annual Change	10.8%	7.9%	10.7%	9.9%	6.9%	4.4%
<b>Trade</b>	<b>497.7</b>	<b>494.6</b>	<b>496.0</b>	<b>494.3</b>	<b>511.9</b>	
Quarterly Change	4.7%	-0.6%	0.3%	-0.3%	3.6%	4.1%
Annual Change	4.2%	3.4%	3.7%	4.0%	2.8%	3.6%
<b>Services and Miscellaneous</b>	<b>612.7</b>	<b>607.2</b>	<b>625.8</b>	<b>629.3</b>	<b>642.6</b>	
Quarterly Change	2.9%	-0.9%	3.1%	0.6%	2.1%	2.4%
Annual Change	5.6%	3.7%	5.4%	5.7%	4.9%	5.5%
<b>Government</b>	<b>345.5</b>	<b>347.2</b>	<b>338.9</b>	<b>318.1</b>	<b>351.9</b>	
Quarterly Change	11.0%	0.5%	-2.4%	-6.1%	10.6%	11.0%
Annual Change	4.3%	6.5%	2.5%	2.2%	1.8%	3.4%

**Notes:** 1) Detailed industry data may not add up exactly due to averaging.  
NA = Not Available  
See Table 3 for Source

Table 2

**Phoenix-Mesa Metropolitan Area Quarterly Nonfarm Employment Data, with Quarterly and Over-the-Year Percentage Change, 4th Qtr. 1997-4th Qtr. 1998<sup>(1)(2)(a)</sup>**

(in Thousands)

	97/4	98/1	98/2	98/3	98/4	10-year Avg. of Qtr. 4 Changes
<b>Civilian Labor Force</b>	<b>1,455.3</b>	<b>1,456.0</b>	<b>1,487.7</b>	<b>1,527.3</b>	<b>1,558.1</b>	
Quarterly Change	1.3%	0.1%	2.2%	2.7%	2.0%	NA
Annual Change	1.0%	2.6%	4.6%	6.3%	7.1%	NA
<b>Total Employment</b>	<b>1,413.9</b>	<b>1,418.4</b>	<b>1,449.8</b>	<b>1,481.3</b>	<b>1,515.6</b>	
Quarterly Change	1.6%	0.3%	2.2%	2.2%	2.3%	NA
Annual Change	1.8%	3.4%	5.0%	6.4%	7.2%	NA
<b>Total Nonfarm Payroll Employment</b>	<b>1,430.9</b>	<b>1,431.1</b>	<b>1,454.8</b>	<b>1,451.7</b>	<b>1,502.1</b>	
Quarterly Change	4.6%	0.0%	1.7%	-0.2%	3.5%	3.8%
Annual Change	5.3%	5.3%	5.9%	6.1%	5.0%	4.3%
<b>Manufacturing</b>	<b>166.7</b>	<b>169.0</b>	<b>170.1</b>	<b>170.8</b>	<b>171.0</b>	
Quarterly Change	2.3%	1.4%	0.7%	0.5%	0.1%	0.7%
Annual Change	7.2%	7.6%	6.7%	4.8%	2.6%	1.9%
<b>Mining and Quarrying</b>	<b>6.0</b>	<b>5.8</b>	<b>5.7</b>	<b>5.6</b>	<b>5.6</b>	
Quarterly Change	-7.2%	-3.3%	-2.3%	-1.2%	0.0%	-1.7%
Annual Change	3.4%	-10.8%	-6.1%	-13.4%	-6.7%	3.1%
<b>Construction</b>	<b>99.8</b>	<b>99.6</b>	<b>103.5</b>	<b>107.8</b>	<b>110.1</b>	
Quarterly Change	3.3%	-0.3%	4.0%	4.1%	2.1%	1.3%
Annual Change	8.3%	9.7%	11.0%	11.6%	10.3%	6.0%
<b>Transportation, Communications, and Public Utilities</b>	<b>72.3</b>	<b>72.3</b>	<b>73.7</b>	<b>75.3</b>	<b>77.5</b>	
Quarterly Change	3.3%	0.0%	1.9%	2.2%	2.9%	2.3%
Annual Change	3.4%	4.3%	5.1%	7.6%	7.1%	3.9%
<b>Finance, Insurance, &amp; Real Estate</b>	<b>111.9</b>	<b>110.8</b>	<b>116.7</b>	<b>118.8</b>	<b>121.3</b>	
Quarterly Change	3.8%	-0.9%	5.3%	1.8%	2.2%	1.7%
Annual Change	11.6%	7.3%	10.2%	10.2%	8.5%	5.0%
<b>Trade</b>	<b>350.2</b>	<b>350.4</b>	<b>351.7</b>	<b>349.8</b>	<b>362.7</b>	
Quarterly Change	5.2%	0.1%	0.4%	-0.5%	3.7%	4.5%
Annual Change	3.8%	4.3%	4.8%	5.1%	3.6%	3.8%
<b>Services and Miscellaneous</b>	<b>443.5</b>	<b>439.0</b>	<b>452.3</b>	<b>452.6</b>	<b>461.6</b>	
Quarterly Change	3.2%	-1.0%	3.0%	0.1%	2.0%	3.1%
Annual Change	6.1%	3.9%	4.8%	5.3%	4.1%	6.0%
<b>Government</b>	<b>180.6</b>	<b>184.2</b>	<b>181.3</b>	<b>171.1</b>	<b>192.4</b>	
Quarterly Change	11.6%	2.0%	-1.6%	-5.6%	12.5%	10.8%
Annual Change	0.7%	5.9%	5.7%	5.8%	6.6%	3.3%

**Notes:**

1) Detailed industry data may not add up exactly due to averaging

2) The introduction of Pinal County into the Phoenix-Mesa Metropolitan Area has created an inconsistency in the mining employment data beginning in 1990

a) Phoenix-Mesa Metropolitan Area includes Maricopa and Pinal counties

NA = Not Available

**Table 3**

**Tucson Metropolitan Area Quarterly Nonfarm Employment Data, with Quarterly and Over-the-Year Percentage Change, 4th Qtr. 1997-4th Qtr. 1998<sup>(1)(b)</sup>**

(in Thousands)

	97/4	98/1	98/2	98/3	98/4	10-year Avg. of Qtr. 4 Changes
<b>Civilian Labor Force</b>	<b>367.7</b>	<b>360.1</b>	<b>370.9</b>	<b>373.6</b>	<b>383.1</b>	
Quarterly Change	1.5%	-2.1%	3.0%	0.7%	2.6%	NA
Annual Change	0.0%	-0.2%	2.6%	3.1%	4.2%	NA
<b>Total Employment</b>	<b>356.1</b>	<b>349.6</b>	<b>360.9</b>	<b>362.7</b>	<b>373.8</b>	
Quarterly Change	1.8%	-1.8%	3.2%	0.5%	3.1%	NA
Annual Change	0.6%	0.3%	3.1%	3.7%	5.0%	NA
<b>Total Nonfarm Payroll Employment</b>	<b>325.4</b>	<b>321.1</b>	<b>325.6</b>	<b>320.8</b>	<b>334.0</b>	
Quarterly Change	4.8%	-1.3%	1.4%	-1.5%	4.1%	4.3%
Annual Change	4.3%	3.1%	3.6%	3.3%	2.7%	2.8%
<b>Manufacturing</b>	<b>28.7</b>	<b>28.5</b>	<b>29.0</b>	<b>29.2</b>	<b>29.4</b>	
Quarterly Change	1.8%	-0.5%	1.5%	0.7%	0.9%	0.0%
Annual Change	0.9%	1.4%	2.8%	3.6%	2.7%	0.1%
<b>Mining and Quarrying</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>	<b>2.1</b>	<b>2.1</b>	
Quarterly Change	-5.7%	0.0%	0.0%	-3.0%	-1.6%	-1.8%
Annual Change	0.0%	-4.3%	-4.3%	-8.6%	-4.5%	1.0%
<b>Construction</b>	<b>20.0</b>	<b>19.2</b>	<b>19.8</b>	<b>20.4</b>	<b>20.7</b>	
Quarterly Change	1.7%	-4.2%	3.0%	3.4%	1.1%	-0.9%
Annual Change	4.2%	2.9%	3.5%	3.7%	3.2%	2.6%
<b>Transportation, Communications, and Public Utilities</b>	<b>14.1</b>	<b>13.4</b>	<b>13.5</b>	<b>13.4</b>	<b>13.6</b>	
Quarterly Change	2.2%	-5.4%	1.2%	-0.7%	1.0%	1.0%
Annual Change	4.2%	1.5%	1.2%	-2.9%	-4.0%	3.8%
<b>Finance, Insurance, &amp; Real Estate</b>	<b>12.7</b>	<b>12.4</b>	<b>12.8</b>	<b>13.4</b>	<b>13.6</b>	
Quarterly Change	3.8%	-1.8%	3.2%	4.4%	1.7%	1.4%
Annual Change	8.3%	6.9%	9.4%	9.8%	7.6%	1.3%
<b>Trade</b>	<b>72.1</b>	<b>70.3</b>	<b>69.5</b>	<b>69.2</b>	<b>72.2</b>	
Quarterly Change	5.6%	-2.5%	-1.1%	-0.4%	4.3%	4.2%
Annual Change	6.1%	2.8%	1.8%	1.5%	0.2%	2.2%
<b>Services and Miscellaneous</b>	<b>101.3</b>	<b>104.0</b>	<b>106.1</b>	<b>106.7</b>	<b>108.4</b>	
Quarterly Change	2.0%	2.7%	2.1%	0.6%	1.6%	2.6%
Annual Change	3.4%	6.2%	7.5%	7.5%	7.1%	4.4%
<b>Government</b>	<b>74.3</b>	<b>71.2</b>	<b>72.7</b>	<b>66.3</b>	<b>74.0</b>	
Quarterly Change	11.3%	-4.3%	2.2%	-8.9%	11.6%	11.7%
Annual Change	4.5%	0.0%	-0.1%	-0.8%	-0.5%	3.0%

**Notes:** 1) Detailed industry data may not add up exactly due to averaging  
 b) Tucson Metropolitan Area includes all of Pima County  
 NA = Not Available

Source: Arizona Department of Economic Security, Research Administration, and U.S. Bureau of Labor Statistics, February 1999

## State Picks Up Moderately Strong Wage Gains

(continued from front page)

the continued strong growth of distribution centers in the Phoenix area, which service stores for national retailers in Arizona, the West, and Mexico. (Non-farm payroll employment in wholesale trade rose 4.7 percent in '97 and 4.1 percent in '98.) And this phenomenon is likely to continue as evidenced by major distributors such as Avnet recently moving their corporate headquarters and distribution operations to the Valley from higher cost areas.

Strong increases in manufacturing wages were driven especially by gains in high-tech sectors, such as "semiconductor and related products." Wages in the semiconductor industry grew more than 17½ percent during the period analyzed (vs. 12¼ for manufacturing). In fact, between 1993 and the third quarter of 1998, semiconductor wages grew more than 36 percent, or about 7 percent a year (see Figure 1).

Other major industry groups which fared reasonably well — but were definitely a cut below wholesale trade and manufacturing — during the period analyzed were retail trade (9¼ percent), construction (8.9 percent), services (9¾ percent), government (9.1 percent), and FIRE (finance, insurance and real estate) (9 percent). With the exception of government, all of the major industries in this group are likely to end up with larger wage-growth rates in '98 than in '97 when final data are tabulated. For the first three quarters of '98, FIRE had the best improvement among this group of major industries, running nearly six percentage points ahead of '97 (7.4 percent vs. 1.7 percent). The strong improvement in '98 occurred, however, because wage weakness in Arizona's commercial banking sector held down FIRE's wage growth in '97 (see below).

### Mining, Banking were Weak

Despite strong and moderate wage growth in most major industry groups during the 21-month period, there were two prominent areas of weakness which played a factor in

Table 1

Arizona Average Annual Pay by Industry, 1997, 1998, and Annual Percentage Change<sup>(a,d)</sup>

	<u>Annual Pay</u>		Pct.		Pct.
	1997 <sup>(b)</sup>	1996	Chg.	1998 <sup>(b,d)</sup>	Chg.
<u>Arizona</u>					
Private Industry <sup>(c)</sup> .....	\$27,144	\$25,923	4.6%	\$27,862	5.6%
Manufacturing .....	39,872	37,168	7.3	40,940	5.0
Mining .....	45,720	49,075	-7.6	44,733	-0.8
Construction .....	27,888	26,726	4.5	28206	4.5
TCPU <sup>1</sup> .....	34,112	33,141	2.9	35114	3.4
Wholesale Trade.....	36,672	34,065	7.6	38,621	8.9
Retail Trade .....	16,736	16,075	4.1	17,302	5.2
FIRE <sup>2</sup> .....	34,040	33,528	1.7	35,888	7.4
Services .....	25,236	24,186	4.3	25,562	5.4
Government .....	\$30,632	\$28,954	5.0	\$31,698	3.3%
<u>United States</u>					
Private Industry <sup>(c)</sup> .....	\$30,053	\$28,582	5.1%	NA	—
Manufacturing .....	38,299	36,235	5.7	NA	—
Mining .....	49,995	47,612	5.0	NA	—
Construction .....	31,741	30,316	4.7	NA	—
TCPU <sup>1</sup> .....	37,631	36,095	4.3	NA	—
Wholesale Trade.....	39,455	37,527	5.1	NA	—
Retail Trade .....	15,877	15,215	4.4	NA	—
FIRE <sup>2</sup> .....	44,860	41,728	7.5	NA	—
Services .....	28,446	26,157	8.8	NA	—
Government .....	\$31,914	\$30,878	3.4%	NA	—

**Notes:** a) Includes workers covered by Unemployment Insurance (UI) and Unemployment Compensation for Federal Employees (UCFE) Programs

b) Data are preliminary

c) Includes data for industries in addition to those shown separately

d) 1998 totals are an annual average based on three-quarters of data

1) Transportation, Communications, and Public Utilities

2) Finance, Insurance, and Real Estate

NA = Not Available

Source: U.S. Dept. of Labor, Bureau of Labor Statistics; and Arizona Dept. of Economic Security, Research Administration

the state's overall wage growth. Mining (primarily made up of copper mining) and the banking sector of FIRE — together representing about 35,000 workers — had significant *decreases* in average annual pay in '97, which persisted to a lesser extent through the first three quarters of '98.

The average annual wage in the mining industry, which saw its employment level drop by 600 (5½ percent) during the period analyzed, fell by more than 8½ percent though the third

quarter of '98 (see Table 1), with 90 percent of that drop occurring in '97.

Conversely, at the national level, mining wages rose 5 percent in '97 (the latest data available). A fall in copper prices and a reduction in profitability during the 21-month period likely accounted for the pay weakness in the state's mining industry. However, among major industry groups in Arizona, mining still had the highest average annual wage in '97, slightly above \$45,000.

On the other hand, at a time when profits and employment had been increasing in the financial sector (both in Arizona and nationally), it was a little disconcerting to observe strong wage decreases in Arizona's commercial banking sector (Standard Industrial Classification (SIC) code 602) during the period analyzed. This weakness persisted throughout the period analyzed, but was particularly acute in '97 when it played a large part in holding FIRE's overall growth rate to a subpar level (1.7 percent). Juxtaposed against FIRE's small wage rise in Arizona in '97 was a robust 7.5 percent increase nationally and similar or higher rate jumps in all states surrounding Arizona, except Nevada (2.3 percent gain).

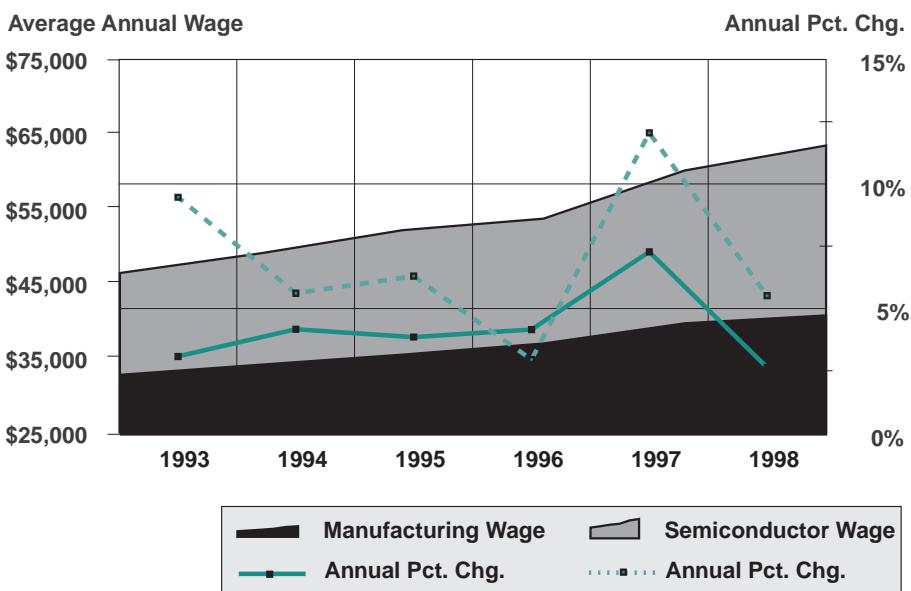
Average annual wages in Arizona's commercial bank sector, which makes up nearly 20 percent of FIRE's employment, fell 12.4 percent from 1996 to '97, then dropped another 2.7 percent for the first three-quarters of '98 compared to the first three-quarters of '97. And in '97, the commercial bank sector was one of the few parts of the finance component of FIRE (SIC's 60, 61, and 62) to have wage losses. In fact, most other groups within the finance sector — such as security brokers — were flourishing (see Figure 2). And the insurance and real estate components of FIRE in Arizona that year grew 4.7 percent and 7 percent, respectively.

Wage weakness in the commercial bank sector — where employment grew by about 15 percent during the period analyzed — was likely due to a number of factors, including consolidations, mergers, and competitive pressures, which led to the closing of a large number of full-service branches and the opening of limited-service, or in-store branches in supermarkets.

According to a story in *The Arizona Republic*, grocery-store bank branches in Arizona grew from about 20 a decade ago to 200 today, with most of that growth occurring in the last few years, said the story's author Catherine Reagor.<sup>2</sup> In effect, Arizona banks were able to cut costs during

**Figure 1**

**Annual Percentage Change in Average Annual Wage in Arizona Manufacturing, and Semiconductor and Related Products Industries, 1993-1998<sup>(a)</sup>**

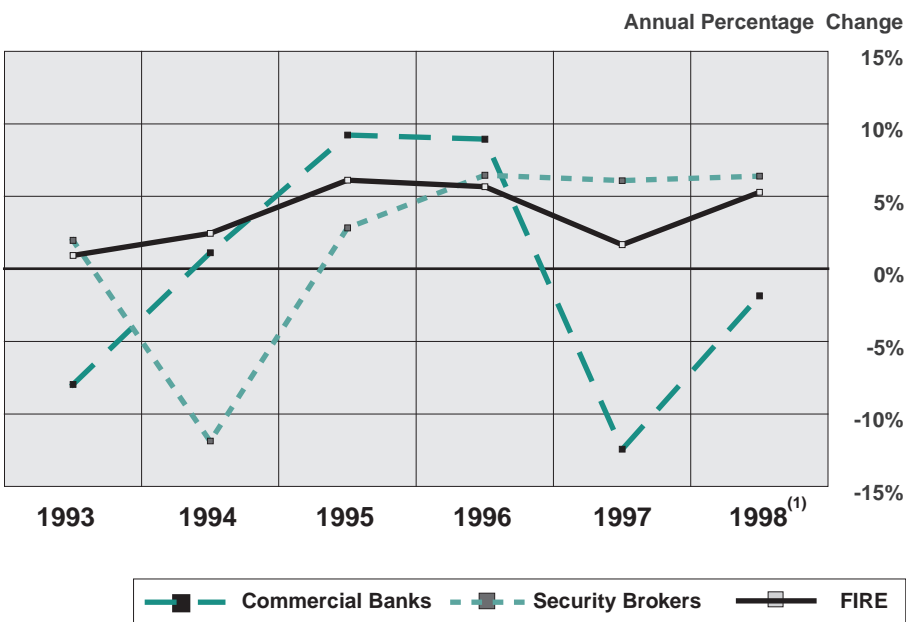


**Note:** a) 1998 data are annual averages based on three-quarters of data

*Source:* Arizona Dept. of Economic Security, Research Administration, April 1999

**Figure 2**

**Annual Percentage Change in Average Annual Wage in Arizona FIRE, Commercial Bank, and Security Brokerage Industries, 1993-1998<sup>(a)</sup>**



**Note:** a) 1998 data are annual averages based on three-quarters of data

*Source:* Arizona Dept. of Economic Security, Research Administration, April 1999

the period analyzed by eliminating large numbers of branch managers, loan officers, and clerical and administrative workers, and replacing them with lower-cost "loan-by-phone" customer-service workers and part- and full-time tellers. "These offices in grocery stores and superstores are a boon for banks because they are cheaper to operate than free-standing branches," said *The Republic* story.

One indication of how much the banking sector (and thus FIRE) impacted state wage growth overall: If FIRE's wages had just matched the state's overall gain in '97 of 4.8 percent (still 2½ percentage points below the national average gain for FIRE), overall average wages in Arizona would have risen by another three-tenths of a percentage point, or to 5.1 percent. And if Arizona's FIRE wages had risen by the national average gain for FIRE (7.5 percent), the state's average wage would have grown by 5¼ percent, or about five-tenths of a percentage point higher.

Not much of a difference, you say. Well, in the latter case the change would have propelled the state into the top 15 in overall wage growth in '97, instead of a tie for 20<sup>th</sup>.

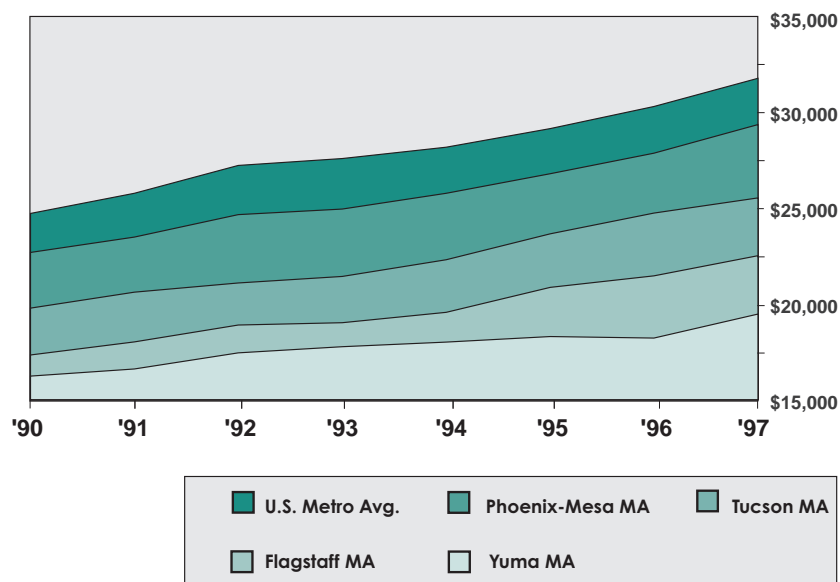
### 1997 State, Metro Overview

For the record, average annual pay in Arizona rose 4.7 percent to \$27,664 in '97, which improved the state's ranking one notch (26<sup>th</sup>) among all states and Washington D.C. Nationally, wages grew by 4.8 percent to an average of \$30,368. The state's ranking has progressively improved since it fell to a low of 29<sup>th</sup> in the early '90s when Arizona had anemic wage growth due to a weak construction and real estate industry. In the mid-1980s, Arizona pay ranked as high as the low 20s, but the loss of half of the mining industry's 25,000 jobs after the 1983 strike and the strong growth of lower-paid service-producing jobs (e.g., customer-service telephone operations) helped bring down the state's overall ranking.

One of the more interesting aspects of the 1997 wage data occurred in the state's metro areas. Normally low-

**Figure 3**

**Annual Average Wage in Overall U.S. and Arizona Metro Areas 1990-1997<sup>(a)</sup>**



**Note:** a) The 1997 U.S. Metro-Area average wage was estimated based on overall U.S. wage growth. Final data for all metro areas will not be released by the U.S. Dept. of Labor, Bureau of Labor Statistics until June 1999.

*Source:* Arizona Dept. of Economic Security, Research Administration, April 1999

wage and high-unemployed Yuma County, with nearly 30 percent of its workforce in agriculture, had the strongest gain (6.8 percent) among the state's four metro areas (see Figure 3). Apparently, the two-tiered 20 percent increase in the federal minimum wage — from \$4.25 to \$4.75 an hour in October 1996 and from \$4.75 to \$5.15 an hour in September 1997 — was the key factor. Yuma County agricultural workers saw their average wage rise nearly an identical percentage — from \$10,639 in '96 to \$12,832 in '97.<sup>3</sup> (Statewide, agricultural wages rose 4.8 percent from '96 to '97.) But don't get too excited, for the first three quarters of 1998 vs. the first three quarters of '97, the average wage for agricultural workers in Yuma County was down 1.5 percent.

Among other metro areas in '97, Phoenix-Mesa MA wages rose 5.3 percent to an average of \$29,304; the Flagstaff MA increased 4.9 percent to an average wage of \$22,500; and the Tucson MA had a modest 3.2 percent gain to an average wage of \$25,500.

As of early May, the U.S. Department of Labor's Bureau of Labor Statistics had not released data on national metro wages for 1997.

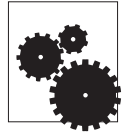
*Note: Research assistance was provided for the article by John Graeflin, RA Research and Statistical Analyst.*

### Notes:

1. Data on average annual pay are the product of a federal-state cooperative program in which State Employment Security Agencies (SESAs) prepare summaries of employment and total pay of workers covered by unemployment insurance (UI) legislation. The summaries are a byproduct of the administration of State Unemployment Insurance Programs, which require most employers to pay quarterly taxes based on the employment and wages of workers covered by UI.
2. "Wal-Mart gets bank; Tiny Chandler institution locates branch in store," Catherine Reagor, *The Arizona Republic*, Arizona Central Internet Edition, April 27, 1999.
3. While agricultural employment is not tabulated with Research Administration's other major employment and wage data-collection program (Current Employment Statistics), this industry is part of the ES-202 program. **AET**

— Brent Fine,  
RA Publications Editor

# Industry Update



## **Phoenix Metro Area**

### ***Manufacturing***

Perhaps waiting until after the holiday period to give out the bad news, **several Valley high-tech companies** announced in late January plans for **significant layoffs or the close of production facilities**. **Motorola Inc.** announced it would close its **silicon-wafer manufacturing operation** at its east Phoenix plant, eliminating about 650 jobs. The Schaumburg, Ill.-based company had already eliminated more than 2,000 jobs at several Valley operations during the past year due to restructuring, including 250 wafer production workers at the Phoenix plant. ... Scottsdale-based **EMG Networks**, which makes educational software beamed to schools by satellite, will **shut its doors by early summer**, laying off 350 workers. The move was precipitated by the purchase of EMG's parent company (Simon & Schuster's educational and reference book division) by a British media company, Pearson Plc. ... Weakness in the semiconductor industry will lead to the **layoff of 130 assembly line workers** at Chandler-based **Microchip Technology Inc.**, or about 20 percent of the company's production capacity. The unit affected produces five-inch-diameter silicon wafers.

**Boeing Co.** plans to **sell the commercial division** of its Mesa helicopter unit to a Netherlands conglomerate, **RDM Holdings Inc.** The move, which will **create MD Helicopters Holdings Inc.**, will likely preserve most of the 160 jobs currently involved with building the MD 500, MD 600, and Explorer series of helicopters, primarily used by police and border patrol units.

### ***Construction***

**Valley construction, which had one of its best years on record, shows no signs of slowing down in the first quarter of 1999. About 7,000 apartment units** are expected to be built this year, in line with the 20,000 built over the last three years. And while apartment construction has been concentrated in north Scottsdale and Ahwatukee, builders are expected to "spread the wealth" across the entire Valley in '99. The same scenario should be true concerning home building. While the **west Valley** contributed about **one-third** of the **record 36,000 new houses** built in the metro area last year, that share is expected to **grow to 50 percent over the next five years**, predicted one land developer. In the near-term, the west Valley should benefit from several large residential projects **(2,000 homes) in the southwest Valley** farm communities of **Avondale and Laveen**, while the northwest Valley cities of Peoria and Glendale will benefit from continued strong commercial and office construction.

Queen Creek, the small farming community in the extreme southeast Valley, is expected to see an **explosion of growth** over the next few years. Proposals by three

developers — Ryland Homes, Jim Hankins, and Johan De Keizer — would bring **nearly 5,000 new homes** to an area near Ellsworth and Ocotillo roads.

The city of **Peoria** has given **approval to a 1,300-acre master-planned community** near Happy Valley Road and 83rd Avenue. The Pivotal Group of Phoenix will develop the project called **WestWing Mountain**, which will include 344 acres for a public preserve, as well as sites for future schools and emergency services.

### ***Transportation, Communications, and Public Utilities***

The parent company of Arizona Public Service has announced plans to build a **\$220 million natural gas-fired power plant** in southwest Phoenix. **Pinnacle West Capital Corp.** will join with San Jose-based **Calpine Corp.** to build a 500-megawatt facility at APS' West Phoenix Power Station, which will **create 200 jobs during construction and 25 full-time positions** after completion in 2001. Calpine is building a similar plant on the Fort Mohave Indian Reservation, 28 miles south of Bullhead City.

Package delivery firm **DHL Worldwide Express** was expected to start work in April on a \$26 million **expansion of its Valley customer-service operations at Papago Park Center in Tempe**. The 91,000-square-foot expansion, which will include a computer data center, more space for customer-service operations, and a two-story parking garage, is expected to lead to an **additional 500 jobs within 10 years**, the company said.

### ***Finance, Insurance, and Real Estate***

**BankOne Arizona's** merger with First Chicago Bank will cause the **loss of about 300 "back-office" jobs** over the next two years. Positions involving printing and mailing of bank statements, courier operations, and microfiche functions will be combined with similar First Chicago jobs, 100 of which will be relocated to Texas. Employees affected by the cuts are being urged to apply for up to 700 BankOne openings statewide in jobs such as tellers and credit officers.

### ***Trade***

Two outdoor retail centers are taking shape in the east Valley. The **\$20 million Casa Paloma** is expected to open in the fourth quarter of 2000 at 56<sup>th</sup> Street and Ray Road in **Chandler**. Sitting on 28 acres, the 160,000-square foot center will include national chains Banana Republic and Gap, along with a wide range of specialty stores. About 15 miles to the north in Scottsdale, **The Promenade, a \$100 million, 866,000-square-foot outdoor shopping center**, will feature a Sears' Great Indoors home store, along with a Lowe's Home Improvement, Petsmart, OfficeMax, and four different types of Gap stores. The project is expected to open early next year.

**Albertson's Inc.** will open a new **pharmacy headquarters in north Scottsdale** this summer that will employ

**250**, with a small percentage of workers expected to transfer from out-of-state locations. The Boise, Idaho-based company, which will become the largest grocery store chain this summer when it merges with American Stores (e.g., Osco, Lucky), will use its pharmacy headquarters to oversee pharmacy operations for nearly 2,500 locations.

**Wal-Mart** plans to **expand its Buckeye distribution center** by 252,000 square feet in September, adding **170 jobs**. The expansion will bring employment at the warehouse — which services all of its Arizona operations, plus stores in northern Mexico — to 400. In addition, the Arkansas-based chain plans to open this fall a “supercenter” and Sam’s Club in north Scottsdale and a supercenter in Mesa.

Intimate-apparel retailer **Frederick’s of Hollywood** will open a **warehouse and call center, employing about 300**, later this summer. The 222,000-square-foot operation will be located at 5005 S. 40<sup>th</sup> Street in Phoenix. Frederick’s had outgrown its two distribution centers in the Los Angeles area.

When and if the \$13 billion **merger between supermarket titans Kroger Co. and Fred Meyer Inc.** is approved by the federal government, it will lead to the **layoff of 400 to 500 workers at Fry’s warehouse operations**. Cincinnati-based Kroger, the parent company of Fry’s, will keep open Fred Meyer’s newer 1.2 million-square-foot warehouse in Tolleson (99<sup>th</sup> Avenue and Buckeye Road) and close Fry’s three older facilities in southwest Phoenix.

The opening of a **Tolleson distribution center** for electronic-sound giant **Bose Corp. will create about 30 warehouse jobs**. The \$5 million, 220,000-square-foot facility at 130 S. 83rd Ave. is expected to begin operation this summer.

### **Services**

CIGNA HealthCare of Arizona plans to **sell its seven Phoenix-area dental clinics to American Dental Partners** of Wakefield, Mass. Of the clinic’s 130 employees, American Dental Partners will employ most of the approximately 100 workers who are not dentists, while the dentists will be offered jobs with Associated Dental Care Providers, an affiliate of American Dental. The CIGNA clinics provide services to about 45,000 plan members.

Mesa-based **Lutheran Healthcare Network** has two major projects in the works. Construction on a **50- to 75-bed hospital at the corner of Ray and Greenfield roads**, along with one of three medical office buildings, is expected to begin at the end of 1999. A 250-bed, seven-story tower is planned in the future as Gilbert expands in size. ... Work on a **\$43 million heart hospital** was expected to begin this spring on the **Valley Lutheran Hospital’s Mesa campus**. The 60-bed facility, which is expected to open in the fall of 2000, will include three operating rooms and cardiac catheterization laboratories, cardiac rehabilitation facilities, and outpatient services.

A leading operator of private and charter schools has officially announced the move in May of its **corporate head-**

**quarters to Scottsdale**, and with it 75 jobs. In addition, **Tesseract Group Inc.** has committed to opening charter schools in Tempe, Glendale, and Peoria (employing 125), with plans in the development stages for building charter schools in Surprise and Goodyear. Currently, the Minneapolis-based company employs 700 at 32 schools it operates in Arizona.

A decreased demand for software training and a change in customer base will cause the **layoff of about 300 workers** at the Scottsdale office of **Platinum Technology Inc.** The company’s Valley workers were a part of software-training company Mastering Inc. until about a year ago, when it was purchased by Platinum Technology. Mastering Inc. specialized in training for Microsoft Windows products.

### **Government**

The cities of **Phoenix, Mesa, Tempe, and Peoria** announced plans to **hire 250 new police officers**. Phoenix will need 100 new officers to equip patrol cars used on second shift with two officers. The two-person patrols are being initiated in response to recent Valley police shootings. Growth is the primary issue in Mesa, Peoria, and Tempe. Mesa wants to add 50 positions to replace retiring officers and 50 to cover population growth, while Peoria wants to hire 10 new police employees, including six patrol officers and three police assistants. Finally, the city of Tempe is expected to add 42 police positions over the next two years. The city plans to spend \$2.3 million to hire 12 patrol officers and 30 other police employees.

### **Tucson Metro Area**

#### **Manufacturing**

A Canadian software company which makes voice-recognition programs is expanding its operations into the United States and will **make its U.S. headquarters in Tucson**. **BCB Voice Systems Inc.**, which will initially hire about a dozen workers, will be located in a 3,800-square-foot facility at Butterfield Business Center.

#### **Construction**

Not to be outdone by its neighbor to the north (see above), metro Tucson is coming off a banner year in home and commercial building, with prospects good for similar success in 1999. **Single-home building permits** in 1998 **jumped 23 percent** over '97 to about 6,600, while commercial development exceeded \$350 million. And with continued expansion by major firms such as **Raytheon Corp., Lockheed, and AlliedSignal**, expect the party to continue. One area to watch will be retail centers anchored by grocery stores. The recent announcement of an **Albertson’s** anchoring a **100,000-square-foot neighborhood retail center** at Speedway and Silverbell should be the first of several similar projects.

#### **Services**

Several **Tucson hospitals** are currently in a **state of flux**. A decrease in patient volume and the loss of an HMO contract are two of the reasons for the **layoff of 230**

**employees in mid- and late-April at St. Joseph's and St. Mary's hospitals.** About 160 nurses and "beside" personnel, along with 70 management positions were eliminated by the parent company of the two hospitals, **Carondelet Health Network.** It's possible that up to 600 employees at Carondelet will lose their jobs by the end of the summer, *The Arizona Daily Star* reported. ... **Tucson General Hospital** is one of 20 hospitals owned by California-based Tenet HealthSystem that has been **put up for sale.** Tucson General was part of a sale in January 1997 by OrNda Healthcare to Tenet, which owns 130 health-care facilities around the country. Tenet said it will attempt to get the new owner of the hospital to limit layoffs.

### **Government**

**Davis-Monthan Air Force Base** appears to have dodged a bullet — at least for now. With the dark clouds of an impending third round of planned military defense cuts hanging over its head, Davis-Monthan looked like a possible target. But the skies appear to have cleared with the announcement of the **addition of 200 military jobs** next January as part of D-M's role as the "lead base" for one of 10 Aerospace Expeditionary Forces.

The **University of Arizona** plans to **expand its Arthritis Center** at **University Hospital** by the end of the year. When complete, it will take up the entire eighth floor of the hospital (encompassing 20,000 square feet) and include 13 research labs, an epidemiology unit, and an audiovisual education room.

### **Balance of State**

#### **Manufacturing**

A **32,000-square-foot expansion and modernization project** will lead to **120 new jobs** at its **Yuma plant**, said **Russell Co.** officials. Formerly known as Russell Coil Co. Inc., the company makes heat-transfer equipment for temperature-controlled display cases and other commercial refrigeration products. Russell, which has 185 employees, expects to begin hiring this fall.

#### **Construction**

The Sierra Vista City Council approved an **855-home Canyon De Flores subdivision** after **developer Castle & Cooke** agreed to scale down (by about 250) the number of homes in its 542-acre tract of land at Highway 92 and Kachina Trail. Work on the housing project is not likely to begin until January, however, because of a number of zoning issues still to be resolved.

Construction could begin late this year or early in 2000 on the first phase of a proposed **new regional medical center** that is expected to fill the needs of the **Sierra Vista area** until 2025. When eventually completed, the 40-plus-acre medical complex south of the city will include more than 100 beds and reduce the need of traveling to Tucson for most health services.

One major development is moving dirt, while another has received preliminary approval. **The Mall at Sierra**

**Vista** is expected to open in October, with 400,000 square feet of space, **50 retail stores, and a 10-screen movie complex.** ... Phoenix-based **Voit Development Co.** received the OK from the Kingman City Council to **build the largest shopping center** in the northwest Arizona city. The proposed 374,000-square-foot **Kingman Stampede Center** — which would feature nine retail stores (including a supermarket and home-improvement store), a cinema complex, and five restaurants — would be one of three commercial projects in the works on Stockton Hill Road north of Interstate 40.

### **Services**

**Aegis Communications Group** relocated its telemarketing operations to Sierra Vista, initially **creating 700 customer-service jobs** with the potential to double that number sometime in the future. Aegis will work with Co-chise College to provide prospective employees up to 15 credit hours of free training at the Sierra Vista campus.

Ground was broken on a **\$1.8 million addition** to the **Arizona Health Center in Camp Verde** that will double the hospital's size to 8,000 square feet. The project is a joint venture of **Northern Arizona Healthcare in Flagstaff and Verde Valley Medical Center.** No estimate for completion or projections of new employment were given.

### **Trade**

Work on building a **Wal-Mart "supercenter"** in Payson has been delayed until late spring, which will back up the store's **opening until early 2000.** The 20-acre supercenter — which includes a grocery store and auto tire and lube facility, in addition to the normal department store operation — will replace the town's existing Wal-Mart and add about 200 more positions to the store's workforce.

### **Statewide**

#### **Manufacturing**

Almost all of the **600 workers at McCulloch Corp. plants in Lake Havasu City and Tucson were laid off** in early January due to continuing losses in the company's North American chainsaw and garden-equipment operations. McCulloch is trying to reorganize its business, putting more focus on its consumer chain saws and accessories.

**AlliedSignal Inc.,** which has operations in the Phoenix and Tucson metro areas, announced it will **restructure its aerospace business,** saving between \$30 million to \$50 million. Based in Morris Township, N.J., AlliedSignal has not decided how the savings will be obtained, but some job cuts are expected. The company employs 9,000 workers in Arizona, of which 5,000 are located at its engines plant in Phoenix.

### **Government**

The U.S. Immigration and Naturalization Service announced that about **400 new border patrol agents** (out of 1,000 new agents) will be **assigned to Arizona** this year. More than three-fourths of the agents will go to the Tucson Sector, which covers most of Arizona's southern border. **AET**

# Nonfarm Jobs Grow at Average Rate in Last Quarter

(continued from page 10)

- Manufacturing employment increased by a seasonally low average of 400 (0.2 percent). The 10-year average increase for manufacturing during the fourth quarter is 1,400 jobs (0.6 percent). Manufacturing growth was slower in 1998, largely due to the Asian economic crisis. Electronics, commu-

"Quarterly Review" is back after a hiatus during the Winter 1998-'99 issue. From now on, the previous quarter's data will be reviewed in each issue.

nications, and machinery industries have borne the brunt of the employment contraction.

- Employment in transportation, communications, and public utilities (TCPU) increased by an impressive 2,500 jobs. This expansion was primarily due to a significant increase in transportation, resulting from this industry's ongoing efforts to meet the demands of Arizona's growing population.
- Government and retail trade also demonstrated strong employment growth during the fourth quarter

of 1998, though not as strong as in recent years. Employment in these industries was spurred on by the back-to-school rush, county elections, and the holiday season.

- Finance, insurance, and real estate (FIRE) had normal employment growth. Arizona's favorable combination of high demand for homes, automobiles, and furniture, etc. pushed employment in this industry to an overall high. Additionally, the Federal Reserve's decision to lower the Federal Funds rate in October 1998 has reduced some concern over uncertain foreign-market behaviors pushing U.S. interest rates upward.
- Services employment grew by an average of 13,200 jobs, or 2.1 percent, down slightly from the 10-year average increase of 2.4 percent. Gains in this industry have been inhibited in part by the U.S. dollar strengthening against the Canadian dollar, and consequently discouraging Canadian tourists from vacationing in the country. Business services has been the fastest growing component of the services sector, accounting for 30 percent of the new jobs created in services in 1998. **AET**

— Charlotte Armerding,  
RA Economic Analysis Intern



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The purpose of *Arizona Economic Trends* is to provide an update and analysis of state and county employment and economic data, as well as information on state and national programs and policies that affect the nation's and Arizona's labor markets. Included in this publication twice yearly are Research Administration's two-year projections of employment, unemployment, and labor force for Arizona and its major sub-state regions.

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